

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for promoting survival of mammalian neural cells, wherein said cells express an OP/BMP-activated serine/threonine kinase receptor and a GDNF- or NGF-activated tyrosine kinase receptor, comprising:
contacting said neural cells with an effective concentration of a preparation comprising
 - (a) an OP/BMP morphogen having an amino acid sequence having at least 70% homology or 60% identity with the C-terminal seven cysteine skeleton of human OP-1, wherein said OP/BMP morphogen can induce ectopic bone, and
 - (b) a GDNF neurotrophic factor or a NGF neurotrophic factor selected from GDNF, BDNF, NT-3, NT-4, NT-5 or NT-6,
wherein said OP/BMP morphogen and said GDNF neurotrophic factor or NGF neurotrophic factor act synergistically to promote survival of mammalian neural cells.
2. (Withdrawn) A method for inhibiting the degeneration of mammalian neural cells comprising:
contacting neural cells with a preparation comprising
 - (a) a morphogen comprising a dimeric protein having an amino acid sequence with at least 70% homology with the C-terminal seven cysteine skeleton of human OP- 1, and
 - (b) a GDNF/NGF neurotrophic factor.
3. (Withdrawn) A method for treating a mammalian subject afflicted with damage or injury to neural cells comprising:
contacting neural cells with a preparation comprising
 - (a) a morphogen comprising a dimeric protein having an amino acid sequence with at least 70% homology with the C-terminal seven cysteine skeleton of human OP- 1, and
 - (b) a GDNF/NGF neurotrophic factor.

4. (Withdrawn) A method for treating a mammalian subject at imminent risk of damage or injury to neural cells comprising:
contacting said neural cells with an effective concentration of a preparation comprising
 - (a) a GDNF/NGF neurotrophic factor, and
 - (b) an OP/BMP morphogen.
5. (Withdrawn) A method as in any one of claims 3-4 wherein said damage or injury comprises a mechanical trauma to a tissue comprising said cells.
6. (Withdrawn) A method as in claim 5 wherein said mechanical trauma is selected from the group consisting of blunt force traumatic brain injury, blunt force traumatic spinal cord injury, concussion, intracranial pressure due to cerebral edema or subdural haematoma, broken or crushed vertebra, and torn or severed nerves.
7. (Withdrawn) A method as in any one of claims 3-4 wherein said damage or injury comprises a chemical trauma to a tissue comprising said cells.
8. (Withdrawn) A method as in any one of claims 3-4 wherein said damage or injury comprises ischemia of a tissue comprising said cells.
9. (Withdrawn) A method as in any one of claims 3-4 wherein said damage or injury results from a neuropathic disease.
10. (Withdrawn) A method as in claim 9 wherein said neuropathic disease is selected from the group consisting of Parkinson's disease, Huntington's disease, Amyotrophic Lateral Sclerosis, Alzheimer's disease, epilepsy, progressive muscular atrophy, Charcot-Marie-Tooth disease, palsy, dementia, Shy-Drager disease, Wernicke-Korsakoff syndrome, and Hallervorden-Spatz disease.
11. (Original) A method as in claim 1, wherein said neural cells comprise neurons or neurological cells.
13. (Original) A method as in claim 1, wherein said neural cells comprise peripheral nervous system cells.
14. (Cancelled)
15. (Original) A method as in claim 1, wherein said OP/BMP morphogen comprises an amino acid sequence having at least 80% homology with the C-terminal seven-cysteine skeleton of human OP-1, and wherein said OP/BMP morphogen can induce ectopic bone.

16. (Original) A method as in claim 1, wherein said OP/BMP morphogen comprises an amino acid sequence having at least 90% homology with the C-terminal seven-cysteine skeleton of human OP-1, and wherein said OP/BMP morphogen can induce ectopic bone.
17. (Original) A method as in claim 1, wherein said OP/BMP morphogen comprises an amino acid sequence at least 70% identical to the C-terminal seven-cysteine skeleton of human OP-1.
18. (Previously Presented) A method as in claim 1, wherein said OP/BMP morphogen is selected from OP-1, OP-2, OP-3, BMP2, BMP3, BMP4, BMP5, BMP6 or BMP9.
19. (Previously Presented) A method as in claim 1, wherein said effective concentration of the preparation is between 0.1 ng/ml and 10 µg/ml of said OP/BMP morphogen and between 0.1 ng/ml and 10 µg/ml of said GDNF neurotrophic factor or said NGF neurotrophic factor.
20. (Original) A method as in claim 19 wherein, said effective concentration is between 1 ng/ml and 100 ng/ml of said OP/BMP morphogen.
21. (Previously Presented) A method as in claim 19, wherein said effective concentration is between 1 ng/ml and 100 ng/ml of said GDNF neurotrophic factor or said NGF neurotrophic factor.
22. (Previously Presented) A method as in claim 19, wherein said effective concentration is between 1 ng/ml and 100 ng/ml of said OP/BMP morphogen and between 1 ng/ml and 100 ng/ml of said GDNF neurotrophic factor or said NGF neurotrophic factor.
23. (Previously Presented) A method as in claim 1, wherein said GDNF neurotrophic factor comprises GDNF.
24. (Cancelled)
25. (Withdrawn) A method for inhibiting the death or degeneration of mammalian cells, wherein said cells express an OP/BMP-activated serine/threonine kinase receptor and a GDNF/NGF-activated tyrosine kinase receptor, comprising contacting said cells with an effective concentration of a preparation comprising:
 - (a) a GDNF/NGF neurotrophic factor, and
 - (b) an OP/BMP morphogen.

26. (Withdrawn) A method for treating a mammalian subject afflicted with damage or injury to cells, wherein said cells express an OP/BMP-activated serine/threonine kinase receptor and a GDNF/NGF-activated tyrosine kinase receptor, comprising contacting said cells with an effective concentration of a preparation comprising:
 - (a) a GDNF/NGF neurotrophic factor, and
 - (b) an OP/BMP morphogen.
27. (Withdrawn) A method for treating a mammalian subject at imminent risk of damage or injury to cells, wherein said cells express an OP/BMP-activated serine/threonine kinase receptor and a GDNF/NGF-activated tyrosine kinase receptor, comprising contacting said cells with an effective concentration of a preparation comprising:
 - (a) a GDNF/NGF neurotrophic factor, and
 - (b) an OP/BMP morphogen.
28. (Previously Presented) A pharmaceutical preparation for promoting the survival of mammalian neural cells, wherein said cells express an OP/BMP-activated serine/threonine kinase receptor and a GDNF- or NGF-activated tyrosine kinase receptor, comprising:
 - (a) a GDNF neurotrophic factor or a NGF neurotrophic factor selected from GDNF, BDNF, NT-3, NT-4, NT-5 or NT-6, and
 - (b) an OP/BMP morphogen having an amino acid sequence having at least 70% homology or 60% identity with the C-terminal seven cysteine skeleton of human OP-1, wherein said OP/BMP morphogen can induce ectopic bone.
29. (Cancelled)
30. (Previously Presented) The pharmaceutical preparation of claim 28 or claim 29, wherein said GDNF neurotrophic factor comprises GDNF.
31. (Previously Presented) The pharmaceutical preparation of claim 28 or claim 29, wherein said NGF neurotrophic factor comprises NT-3.
32. (Previously Presented) The method of claim 1, wherein said NGF neurotrophic factor comprises NT-3.